

REMARKS

Claims 3-8 are pending in this application, all of which have been amended. Claims 1-2 have been canceled. No new claims have been added.

The Examiner has objected to the drawings for failing to show various reference characters not mentioned in the description. The Examiner is correct except for item 83b in Fig. 8, which is discussed on page 11, line 10 of the specification. Corrected drawings are attached hereto.

A substitute specification is attached hereto correcting various grammatical, idiomatic and spelling errors. No new matter has been added.

Claims 3 and 4 stand rejected under 35 USC §103(a) as unpatentable over **Shapira et al.** in view of U.S. Patent 6,300,900 to Bleret et al. (hereinafter "**Bleret et al.**") and U.S. Patent 6,707,432 to Strickland (hereinafter "**Strickland**").

Applicants respectfully traverse this rejection.

Shapira et al. discloses a method of controlling a plurality of beam patterns radiated by a base station in a wireless communication system. The method includes receiving at least one signal from a mobile station at the base station, determining estimated attributes of the at least one signal received by the base station. Smoothed versions of the estimated attributes are calculated in accordance with a predetermined set of criteria are calculated. A set of weighted signal parameters are generated to describe a polarization state of the at least one signal received from the mobile station. The generated weighed signal parameters are applied to a signal

transmitted by the base station such that the transmitted signal substantially matches the polarization state of the at least one signal from the mobile station.

Bleret et al. discloses an antenna for receiving and/or transmitting linearly polarized signals which includes at least a first radiating element (24, 26) circularly polarized in one direction and at least a second radiating element (28, 30) circularly polarized in the other direction. The signals with substantially equal amplitudes supplied by the radiating elements circularly polarized in opposite directions are combined to supply a linearly polarized signal. The linear polarization direction is a function of the variable phase-shift ($\Delta\phi$) between the combined signals. A phase-shifter (32) adjusts the polarization direction of the antenna. The adjustment can be automated.

Strickland discloses systems and devices for mechanically rotating the polarization of a signal emanating from or being received by an antenna system. The rotation of the polarization is achieved by mechanically rotating the feed using a non-metallic drive cord or belt connected to a motor which is displaced outside or behind the radiating aperture. For a linear array of multiple antenna elements, each feed for each antenna element is rotated simultaneously and by an equal amount through the use of a drive system common to all the feeds. The drive system is coupled to each feed and to a drive motor. When the motor is activated, the drive system simultaneously rotates each feed by a given amount. By rotating the feed, the polarization of the signal is correspondingly rotated and compensation for polarization loss is provided.

The Examiner urges that **Bleret et al.** discloses “selecting the antenna having the largest interference”.

Applicants respectfully disagree. Column 2, lines 15-18 disclose that “a perpendicular polarization (or cross polarization) signal is detected and the phase shift is chosen that produces a minimum signal for the cross polarization”. Column 2, lines 59-61 disclose that “pointing can be adjusted either by seeking a signal maximum on the axis of the antenna or a minimum on the axis of the antenna.”

Neither passage discloses “selecting one of the antennas having the larger interference”, as recited in claims 3 and 4. Indeed, **Bleret et al.** is directed to only a single antenna.

Strickland teaches no more than a mechanical means for rotating the polarization of a signal passing through the antenna system.

Neither reference, therefore, teaches, mentions or suggest the limitations of claims 3 and 4.

Accordingly, claims 3 and 4 have been amended to be in independent form, and the 35 USC §103(a) rejection should be withdrawn..

Claim 6 stands rejected under 35 USC §103(a) as unpatentable over **Shapira et al.** in view of **Bleret et al.**

Applicants respectfully traverse this rejection.

The Examiner urges that column 4, line 66 through column 5, line 2 of **Bleret et al.** discloses “selection of a horizontal or vertical polarization of an antenna for minimum interference”.

Applicants respectfully disagree. The cited passage merely discloses an H and V polarization adjustment carried out to minimize the received signal, not to minimize interference, as claimed.

Accordingly, claim 6 has been amended to be in independent form, and the 35 USC §103(a) rejection should be withdrawn..

Claim 7 stands rejected under 35 USC §103(a) as unpatentable over **Shapira et al.** in view of **Strickland**.

Applicants respectfully traverse this rejection.

Strickland teaches no more than a mechanical means for adjusting the phase of polarization, with no suggestion of how to perform the adjustment to provide minimum interference in each antenna or determining an angle of polarization phase which provides said minimum interference.

Accordingly, claim 7 has been amended to be in independent form, and the 35 USC §103(a) rejection should be withdrawn.

Claim 8 stands rejected under 35 USC §103(a) as unpatentable over **Shapira et al.** and **Strickland** and further in view of U.S. Patent Application Publication US 2004/0013211 A1 to Lindskog et al. (hereinafter “**Lindskog et al.**”).

Applicants respectfully traverse this rejection.

Lindskog et al. has been cited for teaching classifying of antennas into groups having a plurality of antennas, but fails to teach that the groupings should be grouped such that the interference between adjacent groups is small, as recited in claim 8.

Accordingly, claim 8 has been amended to be in independent form, and the 35 USC §103(a) rejection should be withdrawn.

The Examiner has indicated that claim 5 would be allowable if rewritten in independent form.

Accordingly, claim 5 has been amended to be in independent form.

In view of the aforementioned amendments and accompanying remarks, claims 3-8, as amended, are in condition for allowance, which action, at an early date, is requested.


If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

U.S. Patent Application Serial No. **10/083,508**
Response to Office Action dated August 25, 2004

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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PATENT TRADEMARK OFFICE

Enclosures: Replacement Sheets of Drawing (Figs. 1-7)
Substitute Abstract of the Disclosure
Marked-Up Specification
Substitute Specification
Amendment Transmittal
Petition for Extension of Time

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IN THE DRAWINGS:

The attached sheet of drawings includes changes to Figs. 1-7. These sheets, which includes Figs. 1-7, replaces the original sheet including Figs. 1-7. The Examiner has objected to the drawings for failing to show various reference characters not mentioned in the description. The Examiner is correct except for item 83b in Fig. 8, which is discussed on page 11, line 10 of the specification.

The misspelling of the word "BUILDING" in Figs. 1 and 3 has been corrected; the misspelling of the word "DISTRIBUTOR" in Figs. 2-7 has been corrected and that Fig. 1 has been labeled "Prior Art".

The word "directive" has been amended to "directional" throughout the drawings to improve idiom.